



AUG 1 5 2014

Mr. Mirko Muller Saint-Gobain Containers, Inc. P.O. Box 4200 Muncie, IN 47307-4200

Re: Proposed Authority to Construct/Certificate of Conformity (Minor Mod) District Facility # C-801 Project # C-1140359

Dear Mr. Muller:

Enclosed for your review is the District's analysis of an application for Authorities to Construct for the facility identified above. You requested that Certificates of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The applicant proposes to revise the PM10 emission factor for the mold swabbing operation and hot end bottle coating operation.

After addressing all comments made during the 45-day EPA comment period, the District intends to issue the Authorities to Construct with Certificates of Conformity. Prior to operating with modifications authorized by the Authorities to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

If you have any questions, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Thank you for your cooperation in this matter.

Sincerely,

Arnaud Marjollet

Director of Permit Services

Enclosures

Gerardo C. Rios, EPA (w/enclosure) via email CC:

> Seyed Sadredin Executive Director/Air Pollution Control Officer

# San Joaquin Valley Air Pollution Control District Authority to Construct Application Review

Revision of Mold Swab Cooling and Hot End Bottle Coating Operation Emission Factor

Facility Name: Saint-Gobain Containers, Inc

Date: August 11, 2014

Mailing Address: P.O. Box 4200

Engineer: Stanley Tom

Muncie, IN 47307-4200

Lead Engineer: Joven Refuerzo

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Application #(s): C-801-11-8 and '12-8

Project #: C-1140359

Deemed Complete: May 23, 2014

#### I. PROPOSAL

Saint-Gobain Containers, Inc. (SGCI) has requested an Authority to Construct (ATC) permit to revise the PM<sub>10</sub> emission factor for the mold swabbing operation listed in permit C-801-11 and for the hot end bottle coating operation listed in permit C-801-12 (see current PTOs in Attachment A).

Source tests were performed at another facility and the tests determined the current emission factors only include the filterable particulate fraction. The proposed emission factors include both the filterable and condensable particulate fractions.

In addition, the current emission factors assume for the mold swabbing operation that 70% of the material is volatile and 50% is emitted during use with 100% of the particulate emitted as  $PM_{10}$  and for the hot end bottle coating operation that 70% of the material is volatile and 50% is emitted during use with 50% of the particulate emitted as  $PM_{10}$ . The source tests have shown that 100% of the material is volatile and 90% is emitted during use for the mold swabbing operation and 24% is emitted during use for the hot end bottle coating operation with 100% of the particulate emitted as  $PM_{10}$ .

The table below summarizes the current  $PM_{10}$  emission factor and the proposed emission factor in this project for each operation. The emission factors will be revised pursuant to District Policy APR 1110.

Permit	Operation	Current Emission Factor (lb-PM <sub>10</sub> /ton glass)	Proposed Emission Factor (lb-PM <sub>10</sub> /ton glass)
C-801-11	Mold Swabbing	0.074	0.19
C-801-12	Hot End Bottle Coating	0.018	0.024

Currently, the potential to emit for each permit is based upon an emission factor and a maximum glass throughput process rate. To avoid triggering offsets in this project, the facility has proposed to establish a combined annual  $PM_{10}$  emission limit of 65,348 lb/year for permits C-801-11 and '12 (refer to the offset discussion in Section VIII.B for details).

Saint-Gobain Containers, Inc. has received their Title V Permit. This modification can be classified as a Title V minor modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). The facility has requested that this project be processed in that manner; therefore, Saint-Gobain Containers, Inc. will be required to submit a Title V administrative amendment application prior to operating under the revised provisions of the ATC permits issued with this project.

#### II. APPLICABLE RULES

Rule 2201 New and Modified Stationary Source Review (4/21/11)

Rule 2410 Prevention of Significant Deterioration (6/16/11)

Rule 2520 Federally Mandated Operating Permits (6/21/01)

Rule 4001 New Source Performance Standards (4/14/99)

Rule 4002 National Emission Standards for Hazardous Air Pollutants (5/20/04)

Rule 4101 Visible Emissions (2/17/05)

**Rule 4102** Nuisance (12/17/92)

Rule 4201 Particulate Matter Concentration (12/17/92)

Rule 4202 Particulate Matter – Emission Rate (12/17/92)

CH&SC 41700 California Health & Safety Code, Sec 41700 - Health Risk Assessment

CH&SC 42301.6 California Health & Safety Code, Sec 42301.6 - School Notice Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)

California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387; CEQA Guidelines

#### III. PROJECT LOCATION

This facility is located at 24441 Avenue 12, at Road 24 1/2, Madera, CA. The District has verified that the facility is not located within 1,000 feet of any K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

#### IV. PROCESS DESCRIPTION

## Mold swabbing operation (permit C-801-11)

Molds for the bottles are coated with a petroleum-based hydrocarbon compound that allows the bottles to be released from the mold after they are formed. This is done by having a person take a long swab, which has been dipped into the swabbing material, and rub the swab on the neck portion of the mold. Because the bottles are formed while the glass is still very hot (temperatures of approximately 800 - 1,000°F), the mold swabbing material is volatilized at contact and will be emitted as particulate soot and tar.

# Hot end bottle coating operation (permit C-801-12)

After the bottles have been formed they are conveyed though the hot end bottle coating operation. This operation consists of a heated tunnel which applies a metallic surface treatment to the bottles. Typically molten tin (Sn) or titanium (Ti) is misted onto the bottles and then heat from several natural gas-fired burners bonds this material to the surface of the bottles. This is done to give the bottles a scratch resistant surface.

## V. EQUIPMENT LISTING

# Pre-Project Equipment Description

Current Permit#	Pre-Project Equipment Description
C-801-11-6	MOLD SWABBING OPERATION INCLUDING FIVE PRODUCTION LINES WITH FIVE INDIVIDUAL SECTION (IS) FORMING MACHINES (THREE 10 INDIVIDUAL SECTION (IS) FORMING MACHINES FOR FURNACE #1 AND TWO INDIVIDUAL SECTION MACHINES, ONE WITH A 16 SECTION LINE AND ONE WITH A 20 SECTION LINE FOR FURNACE #2)
C-801-12-5	HOT END BOTTLE COATING OPERATION INCLUDING FIVE COATING LINES (THREE FOR FURNACE #1 AND TWO FOR FURNACE #2) WITH FIVE COATING UNITS

## Proposed Modification

ATC Permit #	ATC Equipment Description
C-801-11-8	MODIFICATION OF MOLD SWABBING OPERATION INCLUDING FIVE PRODUCTION LINES WITH FIVE INDIVIDUAL SECTION (IS) FORMING MACHINES (THREE 10 INDIVIDUAL SECTION (IS) FORMING MACHINES FOR FURNACE #1 AND TWO INDIVIDUAL SECTION MACHINES, ONE WITH A 16 SECTION LINE AND ONE WITH A 20 SECTION LINE FOR FURNACE #2): REVISE PM10 EMISSION FACTOR FROM 0.074 LB/TON TO 0.19 LB/TON
C-801-12-8	MODIFICATION OF HOT END BOTTLE COATING OPERATION INCLUDING FIVE COATING LINES (THREE FOR FURNACE #1 AND TWO FOR FURNACE #2) WITH FIVE COATING UNITS: REVISE PM10 EMISSION FACTOR FROM 0.018 LB/TON TO 0.024 LB/TON

## Post-Project Equipment Description

Proposed Permit#	Post-Project Equipment Description
C-801-11-8	MOLD SWABBING OPERATION INCLUDING FIVE PRODUCTION LINES WITH FIVE INDIVIDUAL SECTION (IS) FORMING MACHINES (THREE 10 INDIVIDUAL SECTION (IS) FORMING MACHINES FOR FURNACE #1 AND TWO INDIVIDUAL SECTION MACHINES, ONE WITH A 16 SECTION LINE AND ONE WITH A 20 SECTION LINE FOR FURNACE #2)
C-801-12-8	HOT END BOTTLE COATING OPERATION INCLUDING FIVE COATING LINES (THREE FOR FURNACE #1 AND TWO FOR FURNACE #2) WITH FIVE COATING UNITS

#### VI. EMISSION CONTROL EQUIPMENT EVALUATION

#### Mold swabbing operation (permit C-801-11)

No control technology is used on the mold swabbing operation. Emissions are vented into the plant and eventually vented out through an exhaust vent opening in the plant.

## Hot end bottle coating operation (permit C-801-12)

No control technology is used on the hot end bottle coating operation. Emissions are vented into the plant and eventually vented out through an exhaust vent opening in the plant.

#### VII. CALCULATIONS

## A. <u>Assumptions</u>

- Maximum operating schedule = 24 hours/day, 365 days/year
- $PM_{2.5} = PM_{10}$  (worst case assumption, unless otherwise stated)
- Maximum permitted daily potential glass pull-rate = 1,050 tons per day (based on maximum production for furnaces #1 and #2)
- Maximum permitted annual glass production rate = 370,380 tons per year (based on maximum production for furnaces #1 and #2)
- Combined post-project emission limit for permits C-801-11 and '12 = 65,348 lb-PM10/year (to avoid triggering offsets in this project)

## Mold swabbing operation (permit C-801-11-8)

The current emission factor is based upon the following information:

 70% of the petroleum-based hydrocarbon compound used in the mold swabbing operation will volatilize at contact temperatures of approximately 800 °F and 50% will be emitted as particulate soot and tar (per Applicant)

The proposed emission factor is based upon the following updated information based upon the recent source tests performed on the operation:

 100% of the petroleum-based hydrocarbon compound used in the mold swabbing operation will volatilize at contact temperatures of approximately 800 °F and 90% will be emitted as particulate soot and tar (per Applicant)

## Hot end bottle coating operation (permit C-801-12-8)

The current emission factor is based upon the following information:

- Minimum application efficiency of 30% (i.e., 70% material loss)
- 50% of material loss is to shop ventilation, with the balance of the material captured in hood and duct and removed during routine maintenance (per Applicant)
- PM<sub>10</sub> = 50% PM (per Applicant)

The proposed emission factor is based upon the following updated information based upon the recent source tests performed on the operation:

- Minimum application efficiency of 0% (i.e., 100% material loss)
- 24% of material loss is to shop ventilation, with the balance of the material captured in hood and duct and removed during routine maintenance (per Applicant)
- PM<sub>10</sub> = 100% PM (per Applicant)

## B. <u>Emission Factors</u>

## Pre-Project Emission Factors

The current emission factors for the mold swabbing operation and hot end bottle coating operation were established in project C-1053187 as proposed by the applicant. As explained in the Proposal section, the facility has source tested the operations and have measured a more representative emission factor for the operations. Therefore, the current emission factor will be revised according to District Policy APR 1110.

## Mold swabbing operation (permit C-801-11-8)

Current Pre-Project Emission Factor Mold Swabbing Operation		
Pollutant	EF1	Source
PM <sub>10</sub>	0.074 lb/ton	Current PTO

# EF = 0.211 lb-material/ton glass $\times$ 0.7 $\times$ 0.5 = 0.074 lb-PM10/ton glass

Revised Pre-Project Emission Factor Mold Swabbing Operation		
Pollutant	EF1	Source
PM <sub>10</sub>	0.19 lb/ton	Source Test

EF = 0.211 lb-material/ton glass  $\times$  1.0  $\times$  0.9 = 0.19 lb-PM10/ton glass

Hot end bottle coating operation (permit C-801-12-8)

Current Pre-Project Emission Factor Hot End Bottle Coating		
Pollutant	EF1	Source
PM <sub>10</sub>	0.018 lb/ton	Current PTO

EF = 0.103 lb-material/ton glass x 0.7 x 0.5 x 0.5 PM<sub>10</sub>/PM= 0.018 lb-PM10/ton glass

Revised Pre-Project Emission Factor Hot End Bottle Coating		
Pollutant	EF1	Source
PM <sub>10</sub>	0.024 lb/ton	Source Test

EF = 0.103 lb-material/ton glass x 1.0 x 0.24 x 1.0 PM<sub>10</sub>/PM = 0.024 lb-PM10/ton glass

## Post-Project Emission Factors

Mold swabbing operation (permit C-801-11-8)

Post-Project Emission Factor Mold Swabbing Operation		
Pollutant	EF2	Source
PM <sub>10</sub>	0.19 lb/ton	Source Test
PM <sub>2.5</sub>	0.19 lb/ton	Applicant Proposal

## Hot end bottle coating operation (permit C-801-12-8)

Post-Project Emission Factor Hot End Bottle Coating		
Pollutant	EF2	Source
PM <sub>10</sub>	0.024 lb/ton	Source Test
PM <sub>2.5</sub>	0.024 lb/ton	Applicant Proposal

## C. <u>Calculations</u>

## 1. Pre-Project Potential to Emit (PE1)

Mold swabbing operation (permit C-801-11-8)

Daily PE1 = 
$$(0.19 \text{ lb/ton}) \times (1,050 \text{ tons/day})$$
  
=  $199.5 \text{ lb-PM}_{10}/\text{day}$ 

Annual PE1 = 
$$(0.19 \text{ lb/ton}) \times (370,380 \text{ tons/year})$$
  
=  $70,372 \text{ lb-PM}_{10}/\text{year}$ 

Pre-Project Potential to Emit Mold Swabbing Operation		
Pollutant	Daily Emissions (lb/day)	Annual Emissions (lb/year)
PM <sub>10</sub>	199.5	70,372
PM <sub>2.5</sub>	199.5	70,372

Hot end bottle coating operation (permit C-801-12-8)

Daily PE1 = 
$$(0.024 \text{ lb/ton}) \times (1,050 \text{ tons/day})$$
  
= 25.2 lb-PM<sub>10</sub>/day

Annual PE1 = 
$$(0.024 \text{ lb/ton}) \times (370,380 \text{ tons/year})$$
  
= 8,889 lb-PM<sub>10</sub>/year

Pre-Project Potential to Emit Hot End Bottle Coating		
Pollutant	Daily Emissions (lb/day)	Annual Emissions (lb/year)
PM <sub>10</sub>	25.2	8,889
PM <sub>2.5</sub>	25.2	8,889

# 2. Post Project Potential to Emit (PE2)

Mold swabbing operation (permit C-801-11-8)

Daily PE2 = 
$$(0.19 \text{ lb/ton}) \times (1,050 \text{ tons/day})$$
  
=  $199.5 \text{ lb-PM}_{10}/\text{day}$ 

Annual PE2 =  $(0.19 \text{ lb/ton}) \times (370,380 \text{ tons/year})$ =  $70,372 \text{ lb-PM}_{10}/\text{year}$ 

Daily PE2 =  $(0.19 \text{ lb/ton}) \times (1,050 \text{ tons/day})$ =  $199.5 \text{ lb-PM}_{2.5}/\text{day}$ 

Annual PE2 =  $(0.19 \text{ lb/ton}) \times (370,380 \text{ tons/year})$ =  $70,372 \text{ lb-PM}_{2.5}/\text{year}$ 

Post-Project Potential to Emit Mold Swabbing Operation				
Pollutant	Daily Emissions (lb/day)	Annual Emissions (lb/year)		
PM <sub>10</sub>	199.5	70,372		
PM <sub>2.5</sub>	199.5	70,372		

Hot end bottle coating operation (permit C-801-12-8)

Daily PE2 =  $(0.024 \text{ lb/ton}) \times (1,050 \text{ tons/day})$ = 25.2 lb-PM<sub>10</sub>/day

Annual PE2 =  $(0.024 \text{ lb/ton}) \times (370,380 \text{ tons/year})$ = 8,889 lb-PM<sub>10</sub>/year

Daily PE2 =  $(0.024 \text{ lb/ton}) \times (1,050 \text{ tons/day})$ = 25.2 lb-PM<sub>2.5</sub>/day

Annual PE2 =  $(0.024 \text{ lb/ton}) \times (370,380 \text{ tons/year})$ = 8,889 lb-PM<sub>2.5</sub>/year

Post-Project Potential to Emit Hot End Bottle Coating				
Pollutant	Daily Emissions (lb/day)	Annual Emissions (lb/year)		
PM <sub>10</sub>	25.2	8,889		
PM <sub>2.5</sub>	25.2	8,889		

#### Permits C-801-11-8 and '12-8

The facility has proposed to limit the combined annual  $PM_{10}$  emissions for permits C-801-11 and '12 to 65,087 lb/year to avoid triggering offsets in this project (refer to the offset discussion in Section VIII.B for details).

Post-Project Potential to Emit (C-801-11 and '12)				
Permit Unit	Pollutant	Daily Emissions (lb/day)	Annual Emissions (lb/year)	
C-801-11-8	D. A.	199.5		
C-801-12-8	PM <sub>10</sub>	25.2	65,348	
C-801-11-8	DM	199.5		
C-801-12-8	PM <sub>2.5</sub>	25.2	65,348	

# 3. Pre-Project Stationary Source Potential to Emit (SSPE1)

Pursuant to District Rule 2201, the Pre-Project Stationary Source Potential to Emit (SSPE1) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

Pr	Pre-Project Stationary Source Potential to Emit [SSPE1]					
Permit Unit	NO <sub>X</sub> (lb/year)	SO <sub>X</sub> (lb/year)	PM <sub>10</sub> (lb/year)	PM <sub>2.5</sub> (lb/year)	CO (lb/year)	VOC (lb/year)
C-801-1-19	204,984	265 472	404740	440 404*	157,680	7,884
C-801-2-12	252,473	265,473	164,719	116,401*	42,540	36,593
C-801-3-11	0	0	843	843	0	0
C-801-4-3	0	0	91	91	0	0
C-801-5-6	0	0	193	193	0	0
C-801-6-3	0	0	1	1	0	0
C-801-7-4	233	3	17	17	50	19
C-801-11-6	0	0	70,372	70,372	0	0
C-801-12-5	0	0	8,889	8,889	0	0
C-801-17-1	0	0	1,424	1,424	0	0
C-801-19-3	5,040	144	383	383	4,234	277
C-801-20-3	4,292	168	447	447	882	323
C-801-21-3	7,358	287	766	766	1,512	544
C-801-22-2	2,520	72	192	192	2,117	139
C-801-23-2	2,520	72	192	192	2,117	139
C-801-24-2	3,360	96	255	255	2,822	185
C-801-25-3	2,520	72	192	192	2,117	139
C-801-26-1	8,672	247	659	659	7,285	477
C-801-27-1	3,767	107	286	286	3,164	207
C-801-28-1	2,365	67	180	180	1,987	130
C-801-29-1	3,767	107	286	286	3,164	207
C-801-30-1	3,197	125	333	333	657	241
C-801-31-1	3,197	125	333	333	657	241
C-801-32-2	2,046	80	213	213	420	154

C-801-33-1	3,154	90	240	240	2,649	173
C-801-34-1	3,154	90	240	240	2,649	173
C-801-37-2	0	0	24	24	0	0
C-801-38-2	251	0	7	7	31	8
C-801-39-5	0	0	36	36	0	0
C-801-41-1	726	1	25	25	84	16
C-801-42-2	0	0	292	292	0	0
C-801-43-5	0	0	41	41	0	0
C-801-44-1	0	0	23	23	0	0
C-801-45-0	122	0	20	00	000	4.0
C-801-46-0	122	8	22	22	632	16
C-801-48-0	1051	115	31	31	147	39
C-801-49-0	0	0	34	34	0	0
Pre-project SSPE (SSPE1)	520,769	267,549	252,281	203,963	239,597	48,324

 $<sup>^*</sup>$  Per AP-42 Section 11.5 Glass Manufacturing, Table 11.15-3 summarizes particle size distributions for melting furnaces used in glass manufacturing. The table shows for ESP controlled glass melting furnaces, 53 percent of the particle size distribution has an aerodynamic particle diameter of 2.5  $\mu m$  and 75 percent of the particle size distribution has an aerodynamic particle diameter of 10  $\mu m$ .

Annual PE  $_{C-801-1-19 \text{ and } '2-12}$  = 164,719 lb-PM $_{10}$ /year Annual PE  $_{C-801-1-19 \text{ and } '2-12}$  = 164,719 lb-PM $_{10}$ /year ÷ 0.75 = 219,625 lb-PM/year Annual PE  $_{C-801-1-19 \text{ and } '2-12}$  = 219,625 lb-PM/year x 0.53 = 116,401 lb-PM $_{2.5}$ /year

## 4. Post Project Stationary Source Potential to Emit (SSPE2)

Pursuant to District Rule 2201, the Post Project Stationary Source Potential to Emit (SSPE2) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

Po	st-Project St	ationary So	urce Potent	ial to Emit	[SSPE2]	
Permit Unit	NO <sub>X</sub> (lb/year)	SO <sub>X</sub> (lb/year)	PM <sub>10</sub> (lb/year)	PM <sub>2.5</sub> (lb/year)	CO (lb/year)	VOC (lb/year)
C-801-1-19	204,984	265 472	464.740	440 404	157,680	7,884
C-801-2-12	252,473	265,473	164,719	116,401	42,540	36,593
C-801-3-11	0	0	843	843	0	0
C-801-4-3	0	0	91	91	0	0
C-801-5-6	0	0	193	193	0	0
C-801-6-3	0	0	1	1	0	0
C-801-7-4	233	3	17	17	50	19

C-801-11-8	0	0	05.040	05.040	0	0
C-801-12-8	0	0	65,348 65,348		0	0
C-801-17-1	0	0	1,424	1,424	0	0
C-801-19-3	5,040	144	383	383	4,234	277
C-801-20-3	4,292	168	447	447	882	323
C-801-21-3	7,358	287	766	766	1,512	544
C-801-22-2	2,520	72	192	192	2,117	139
C-801-23-2	2,520	72	192	192	2,117	139
C-801-24-2	3,360	96	255	255	2,822	185
C-801-25-3	2,520	72	192	192	2,117	139
C-801-26-1	8,672	247	659	659	7,285	477
C-801-27-1	3,767	107	286	286	3,164	207
C-801-28-1	2,365	67	180	180	1,987	130
C-801-29-1	3,767	107	286	286	3,164	207
C-801-30-1	3,197	125	333	333	657	241
C-801-31-1	3,197	125	333	333	657	241
C-801-32-2	2,046	80	213	213	420	154
C-801-33-1	3,154	90	240	240	2,649	173
C-801-34-1	3,154	90	240	240	2,649	173
C-801-37-2	0	0	24	24	0	0
C-801-38-2	251	0	7	7	31	8
C-801-39-5	0	0	36	36	0	0
C-801-41-1	726	1	25	25	84	16
C-801-42-2	0	0	292	292	0	0
C-801-43-5	0	0	41	41	0	0
C-801-44-1	0	0	23	23	0	0
C-801-45-0	122	8	20	20	000	40
C-801-46-0	122	•	22	22	632	16
C-801-48-0	1051	115	31	31	147	39
C-801-49-0	0	0	34	34	0	0
Post-project SSPE (SSPE2)	520,769	267,549	238,368	190,050	239,597	48,324

#### 5. Major Source Determination

## Rule 2201 Major Source Determination

Pursuant to District Rule 2201, a Major Source is a stationary source with a SSPE2 equal to or exceeding one or more of the following threshold values. For the purposes of determining major source status the following shall not be included:

- any ERCs associated with the stationary source
- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 51.165

	Rule 2201 Major Source Determination					
	NO <sub>x</sub> (lb/year)	SO <sub>X</sub> (lb/year)	PM <sub>10</sub> (lb/year)	PM <sub>2.5</sub> (lb/year)	CO (lb/year)	VOC (lb/year)
Pre Project SSPE (SSPE1)	520,769	267,549	252,281	203,963	239,597	48,324
Post Project SSPE (SSPE2)	520,769	267,549	238,368	190,050	239,597	48,324
Major Source Threshold	20,000	140,000	140,000	200,000	200,000	20,000
Major Source?	Yes	Yes	Yes	No	Yes	Yes

## Rule 2410 Major Source Determination

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i). Therefore the following PSD Major Source thresholds are applicable.

PSD Major Source Determination (tons/year)						
	NO <sub>2</sub>	VOC	SO <sub>2</sub>	CO	PM	PM <sub>10</sub>
Estimated Facility PE before Project Increase	260.4	24.2	133.8	119.8	126.1	126.1
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source ? (Y/N)	Y	N	N	N	N	N

As shown above, the facility is an existing major source for PSD for at least one pollutant. Therefore the facility is an existing major source for PSD.

## 6. Baseline Emissions (BE)

The BE calculation (in lbs/year) is performed pollutant-by-pollutant for each unit within the project to calculate the QNEC, and if applicable, to determine the amount of offsets required.

Pursuant to District Rule 2201, BE = PE1 for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, located at a Major Source.

otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to Rule 2201

## Mold swabbing operation (permit C-801-11-8)

## Clean Emissions Unit, Located at a Major Source

Pursuant to Rule 2201, a Clean Emissions Unit is defined as an emissions unit that is "equipped with an emissions control technology with a minimum control efficiency of at least 95% or is equipped with emission control technology that meets the requirements for achieved-in-practice BACT as accepted by the APCO during the five years immediately prior to the submission of the complete application.

This emissions unit meets the requirements for achieved-in-practice BACT in BACT Guideline 1.5.11 (see BACT guideline revision in Attachment B) which is  $PM_{10}$  emissions of 0.19 lb/ton of glass formed. Therefore, Baseline Emissions (BE) are equal to the Pre-Project Potential to Emit (PE1).

Baseline Emissions (BE)	Mold Swabbing Operation
Permit Unit	PM <sub>10</sub> (lb/year)
C-801-11-8	70,372

#### Hot end bottle coating operation (permit C-801-12-8)

# Fully Offset Emissions Unit, located at a Major Source

Offsets have not previously been provided for this permit unit. Therefore, pursuant to District Rule 2201, this permitted unit is not considered as a Fully Offset Emissions Unit.

# Clean Emissions Unit, Located at a Major Source

Pursuant to Rule 2201, a Clean Emissions Unit is defined as an emissions unit that is "equipped with an emissions control technology with a minimum control efficiency of at least 95% or is equipped with emission control technology that meets the requirements for achieved-in-practice BACT as accepted by the APCO during the five years immediately prior to the submission of the complete application.

Currently, there is no BACT Guideline contained within the District's BACT Clearinghouse that applies to hot end bottle coating operations. Therefore, in order to determine whether or not this permit unit is a Clean Emissions Unit, an Achieved in Practice BACT analysis must be performed.

Owens-Brockway in Tracy, CA operates a similar hot end bottle coating operation. The permit (N-593-11) for Owens-Brockway shows the main coating used is monobutytin trichloride (MBTT). This is the same primary component of the Certincoat TC100 coating used in the Saint-Gobain hot end bottle coating operation.

Owens-Brockway operates the hot end bottle coating operation with collection hoods served by a baghouse and anhydrous ammonia injection system. The anhydrous ammonia reacts with the HCI to form a solid which the baghouse then controls.

Owens-Brockway operates seven hot end bottle treatment lines each with a potential to emit of 0.4 lb-PM<sub>10</sub>/day for a total of 2.8 lb-PM<sub>10</sub>/day and the facility has a total glass pull rate limit of 1,007 tons/day. Therefore, the emission factor for Owens-Brockway hot end bottle coating operation is 0.00278 lb-PM<sub>10</sub>/ton glass pulled which is lower than the Saint-Gobain Containers, Inc hot end bottle coating emission factor of 0.024 lb/ton.

Therefore, the hot end bottle coating operation is not a Clean Emissions Unit for PM<sub>10</sub> emissions.

#### Highly Utilized Emissions Unit

Pursuant to Rule 2201, a Highly Utilized Emissions Unit is defined as for a given pollutant, an emissions unit for which the average annual Actual Emissions during the two consecutive years immediately prior to filing of an application for an Authority to Construct were equal to or greater than 80% of the unit's pre-project Potential to Emit. The unit must have been in operation for at least two years and, during that entire period, the unit must have complied with all applicable emission limits and performance standards.

Process Rate x Emission Factor = PM<sub>10</sub> Emissions

PM <sub>10</sub> Historical Actual Emissions (HAE) Hot End Bottle Coating Operation				
Year	Process Rate (tons/year)		PM <sub>10</sub> Emissions (lb/year)	
2012	284,250	0.024	6,822	
2013	283,583	0.024	6,806	
	Total		13,628	
	Annual Averaç	6,814		

Pre-Project Potential to Emit (PE1) Hot End Bottle Coating Operation			
Pollutant	Annual Emissions (lb/year)		
PM <sub>10</sub>	8,889		

Highly Utilized Emissions Unit Determination Hot End Bottle Coating Operation		
HAE (lb-PM <sub>10</sub> /year)	PE1 (lb-PM <sub>10</sub> /year)	HAE/PE1
6,814	8,889	0.77

Since the average annual Actual Emissions during the two consecutive years immediately prior to filing of an application for an Authority to Construct is less than 80% of the unit's pre-project Potential to Emit, the hot end bottle coating operation is not a Highly Utilized Emissions Unit for  $PM_{10}$  emissions.

The hot end bottle coating operation is not a Fully Offset Emissions Unit, a Clean Emissions Unit, or a Highly Utilized Emissions Unit; therefore, the Baseline Emissions are equal to the Historical Actual Emissions.

#### **Historical Actual Emissions**

Per Rule 2201 Section 3.9.1 and 3.9.2, the baseline period is the two consecutive years of operation immediately prior to the submission date of the Complete Application or at least two consecutive years within the five years immediately prior to the submission date of the Complete Application if determined by the APCO as more representative of normal source operation.

The historical process rates will be used to determine the appropriate baseline period for this project. The process rates were taken from the facility emission inventory submittals.

Historical Process Rate Furnaces #1 & #2				
Year	Process Rate (ton/year)	Two Year Average	Process Rate (ton/year)	
2009	293,217	2009-2010	291,334	
2010	289,451	2010-2011	289,330	
2011	289,209	2011-2012	286,730	
2012	284,250	2012-2013	283,917	
2013	283,583			
Annual Average	287,942			

(Two Year Average – Annual Average)	Historical Process Rate Furnace #1 and #2
Two Year Average	Process Rate (ton/year)
2009-2010	3,392
2010-2011	1,388
2011-2012	1,212
2012-2013	4,025

As shown above, the two year average for years 2011 and 2012 have the smallest absolute value difference from the five year average. Therefore, years 2011 and 2012 will be taken to be the baseline period for this project.

Historical Process Rate Hot End Bottle Coating Operation		
Year Process Rate (lb/year)		
2011	289,209	
2012	284,250	
Total	573,459	
Annual Average	286,730	

Process Rate (tons/year) x Emission Factor (lb/ton) = PM<sub>10</sub> Emissions (lb/year)

Historical Actual Emissions (HAE) Hot End Bottle Coating Operation			
Process Rate (tons/year) Emission Factor (lb/ton) PM <sub>10</sub> Emissions (lb/year)			
286,730	0.024	6,882	

Baseline Emissions (BE) Hot End Bottling Coating Operation		
Permit Unit	PM <sub>10</sub> (lb/year)	
C-801-12-8	6,882	

#### 7. SB 288 Major Modification

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."

Since this facility is not a major source for  $PM_{2.5}$ , this project does not constitute an SB 288 Major Modification for  $PM_{2.5}$ .

Since this facility is a major source for PM<sub>10</sub>, the PE2 for the emission units within this project is compared to the SB 288 Major Modification Threshold in the following table in order to determine if the SB 288 Major Modification calculation is required.

SB 288 Major Modification Post-Project Potential to Emit Summary		
Permit PM <sub>10</sub> (lb/year)		
C-801-11-8	05.040	
C-801-12-8	65,348	

SB 288 Major Modification Threshold (Existing Major Source)			
Pollutant	Project PE (lb/year)	Threshold (lb/year)	SB 288 Major Modification Calculation Required?
PM <sub>10</sub>	65,348	30,000	Yes

Baseline Actual Emissions (BAE)

Mold swabbing operation (permit C-801-11-8)

The process rates were taken from the facility emission inventory submittals.

Process Rate (tons/year) x Emission Factor (lb/ton) = BAE (lb/year)

	Baseline Actual Emissions (BAE) Mold Swabbing Operation		
Year	Process Rate (tons/year)	Emission Factor (lb/ton)	BAE (lb-PM <sub>10</sub> /year)
2009	293,217	0.19	55,711
2010	289,451	0.19	54,996
2011	289,209	0.19	54,950
2012	284,250	0.19	54,008
2013	283,583	0.19	53,881

As shown in Section VII.C.6, the baseline period for this project is years 2011 and 2012.

Baseline Actual Emissions (BAE) Mold Swabbing Operation			
Permit Unit	Two Year Average	PM <sub>10</sub> (lb/year)	
C-801-11-8	2011-2012	54,479	

Hot end bottle coating operation (permit C-801-12-8)

The process rates were taken from the facility emission inventory submittals.

Process Rate (tons/year) x Emission Factor (lb/ton) = BAE (lb/year)

Baseline Actual Emissions (BAE) Hot End Bottle Coating			
Year	Process Rate (tons/year)	Emission Factor (lb/ton)	BAE (lb-PM <sub>10</sub> /year)
2009	293,217	0.024	7,037
2010	289,451	0.024	6.947
2011	289,209	0.024	6,941
2012	284,250	0.024	6,822
2013	283,583	0.024	6,806

As shown in Section VII.C.6, the baseline period for this project is years 2011 and 2012.

Baseline Actual Emissions (BAE) Hot End Bottle Coating Operation			
Permit Unit	Two Year Average	PM <sub>10</sub> (lb/year)	
C-801-12-8	2011-2012	6,882	

#### Net Emissions Increase

Net Emissions Increase (NEI) is calculated as follows:

NEI = PE2 - BAE

SB 288 Major Modification Baseline Actual Emission Summary					
Permit	PM <sub>10</sub> (lb/year)				
C-801-11-8	54,479				
C-801-12-8	6,882				
Total	61,361				

Net Emissions Increase (NEI)						
Pollutant	PE2 (lb/year)	BAE (lb/year)	NEI (lb/year)			
PM <sub>10</sub>	65,348	61,361	3,987			

SB 288 Major Modification Threshold (Existing Major Source)							
Pollutant	Pollutant NEI (lb/year) Threshold (lb/year) SB 288 Major Modification?						
PM <sub>10</sub>	3,987	30,000	No				

The NEI for this project will be less than the SB 288 Major Modification thresholds for PM<sub>10</sub>. Therefore, this project does qualify for a "Less-Than-Significant Emissions Increase" exclusion and is thus determined not to be a SB 288 Major Modification for PM<sub>10</sub>.

#### 8. Federal Major Modification

District Rule 2201 states that major modifications are also federal major modifications, unless they qualify for either a "Less-Than-Significant Emissions Increase" exclusion or a "Plantwide Applicability Limit" (PAL) exclusion.

Since this facility is not a Major Source for  $PM_{2.5}$ , this project does not constitute a Federal Major Modification for  $PM_{2.5}$ .

A Less-Than-Significant Emissions Increase exclusion is for an emissions increase for the project, or a Net Emissions Increase for the project (as defined in 40 CFR 51.165 (a)(2)(ii)(B) through (D), and (F)), that is not significant for a given regulated NSR pollutant, and therefore is not a federal major modification for that pollutant.

- To determine the post-project projected actual emissions from existing units, the provisions of 40 CFR 51.165 (a)(1)(xxviii) shall be used.
- To determine the pre-project baseline actual emissions, the provisions of 40 CFR 51.165 (a)(1)(xxxv)(A) through (D) shall be used.
- If the project is determined not to be a federal major modification pursuant to the provisions of 40 CFR 51.165 (a)(2)(ii)(B), but there is a reasonable possibility that the project may result in a significant emissions increase, the owner or operator shall comply with all of the provisions of 40 CFR 51.165 (a)(6) and (a)(7).
- Emissions increases calculated pursuant to this section are significant if they exceed the significance thresholds specified in the table below.

Significant Threshold (lb/year)				
Pollutant	Threshold (lb/year)			
VOC	0			
NO <sub>x</sub>	0			
PM <sub>10</sub>	30,000			
SO <sub>x</sub>	80,000			

The Net Emissions Increases (NEI) for purposes of determination of a "Less-Than-Significant Emissions Increase" exclusion will be calculated below to determine if this project qualifies for such an exclusion.

The project's emission increase for each pollutant is equal to the sum of the differences between the projected actual emissions or PE and the baseline actual emissions (BAE) (for existing emission units) or the sum of the potentials to emit (for new emission units).

NEI = PAE - BAE - UBC

Where: PAE = Projected Actual Emissions, and

BAE = Baseline Actual Emissions UBC = Unused baseline capacity

If there is no increase in design capacity or potential to emit, the PAE is equal to the annual emission rate at which the unit is projected to emit in any one year, selected by the operator, within 5 years after the unit resumes normal operation (10 years for existing units with an increase in design capacity or potential to emit). If detailed PAE are not provided, the PAE is equal to the PE2 for each permit unit.

The BAE is calculated based on historical emissions and operating records for any 24 month period, selected by the operator, within the previous 10 year period (5 years for electric utility steam generating units). The BAE must be adjusted to exclude any non-compliant operation emissions and emissions that are no longer allowed due to lower applicable emission limits that were in effect when this application was deemed complete.

In calculating the emission increase (PAE – BAE) the portion of the emissions after the project that the unit could have accommodated before the project (during the same period used to determine BAE) and that are unrelated to the particular project (including emissions increases due to product demand growth) are to be excluded. In other words, the difference in emissions between what the unit could have actually accommodated (legally and physically) before the project and the BAE are to be subtracted from any calculated increase, if the ability to utilize the previously unused capacity is not related to the current project. This quantity is termed "unused baseline capacity emissions".

In estimating the unused baseline capacity emissions, only those emissions that could have actually been accommodated (legally and physically) by the emission unit prior to the modification can be excluded when calculating the emission increase. Any increase in capacity utilization that is a result of the proposed modification cannot be counted when determining the unused baseline capacity emissions.

UBC: Since this project does not result in an increase in design capacity or potential to emit, and it does not impact the ability of the emission unit to operate at a higher utilization rate (i.e. the allowable amount of fuel the furnaces can combust will not change), the UBC is the portion of PAE that the emission units could have accommodated during the baseline period.

Net Emission Increase (NEI) = PAE - BAE - UBC = 0

The NEI for this project will be less than the federal Major Modification threshold for  $PM_{10}$ . Therefore, this project does qualify for a "Less-Than-Significant Emissions Increase" exclusion and is thus determined not to be a Federal Major Modification for  $PM_{10}$ .

# 9. Rule 2410 - Prevention of Significant Deterioration (PSD) Applicability Determination

Rule 2410 applies to pollutants for which the District is in attainment or for unclasssified, pollutants. The pollutants addressed in the PSD applicability determination are listed as follows:

- NO<sub>2</sub> (as a primary pollutant)
- SO<sub>2</sub> (as a primary pollutant)
- CO
- PM
- PM<sub>10</sub>

The first step of this PSD evaluation consists of determining whether the facility is an existing PSD Major Source or not (See Section VII.C.5 of this document).

In the case the facility is an existing PSD Major Source, the second step of the PSD evaluation is to determine if the project results in a PSD significant increase.

In the case the facility is NOT an existing PSD Major Source but is an existing source, the second step of the PSD evaluation is to determine if the project, by itself, would be a PSD major source.

In the case the facility is new source, the second step of the PSD evaluation is to determine if this new facility will become a new PSD major Source as a result of the project and if so, to determine which pollutant will result in a PSD significant increase.

## I. Project Location Relative to Class 1 Area

As demonstrated in the "PSD Major Source Determination" Section above, the facility was determined to be a existing major source for PSD. Because the project is not located within 10 km of a Class 1 area – modeling of the emission increase is not required to determine if the project is subject to the requirements of Rule 2410.

## II. Significance of Project Emission Increase Determination

# a. Potential to Emit of attainment/unclassified pollutant for New or <u>Modified</u> Emission Units vs PSD Significant Emission Increase Thresholds

As a screening tool, the potential to emit from all new and modified units is compared to the PSD significant emission increase thresholds, and if total potential to emit from all new and modified units is below this threshold, no further analysis will be needed.

PSD Significant Emission Increase Determination: Potential to Emit (tons/year)								
	NO <sub>2</sub>	SO <sub>2</sub>	CO	PM	PM <sub>10</sub>			
Total PE from New and Modified Units	0	0	0	32.7	32.7			
PSD Significant Emission Increase Thresholds	40	40	100	25	15			
PSD Significant Emission Increase?	N	N	N	Y	Y			

As demonstrated above, because the project has a total potential to emit from all new and modified emission units greater than PSD significant emission increase thresholds, further analysis is required to determine if the project has an emission increase greater than the PSD significant emission increase thresholds, see step below.

# b. Emission Increase for Each Attainment/Unclassified Pollutant with a Significant Emission Increase vs PSD Significant Emission Increase Thresholds

In this step, the emission increase for each attainment/unclassified pollutant is compared to the PSD significant emission increase thresholds, and if emission increase for each attainment pollutant is below this threshold, no futher analysis is needed.

For new emissions units, the increase in emissions is equal to the PE2 for each new unit included in this project.

For existing emissions units, the increase in emissions is calculated as follows:

Emission Increase = PAE - BAE - UBC

Where: PAE = Projected Actual Emissions, and

BAE = Baseline Actual Emissions UBC = Unused baseline capacity

If there is no increase in design capacity or potential to emit, the PAE is equal to the annual emission rate at which the unit is projected to emit in any one year, selected by the operator, within 5 years after the unit resumes normal operation (10 years for existing units with an increase in design capacity or potential to emit). If detailed PAE are not provided, the PAE is equal to the PE2 for each permit unit.

The BAE is calculated based on historical emissions and operating records for any 24 month period, selected by the operator, within the previous 10 year period (5 years for electric utility steam generating units). The BAE must be adjusted to exclude any non-compliant operation emissions and emissions that are no longer allowed due to lower applicable emission limits that were in effect when this application was deemed complete.

UBC: Since this project does not result in an increase in design capacity or potential to emit, and it does not impact the ability of the emission unit to operate at a higher utilization rate (i.e. the allowable amount of fuel the furnaces can combust will not change), the UBC is the portion of PAE that the emission units could have accommodated during the baseline period.

Net Emission Increase (NEI) = PAE - BAE - UBC = 0

As shown above, the project emission increase, for all new and modified emission units, does not exceed any of the PSD significant emission increase thresholds. Therefore the project does not result in a PSD major modification due to a significant emission increase and no further discussion is required.

## 10. Quarterly Net Emissions Change (QNEC)

The Quarterly Net Emissions Change is used to complete the emission profile screen for the District's PAS database. The QNEC shall be calculated as follows:

QNEC = PE2 - PE1, where:

QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr.

PE2 = Post Project Potential to Emit for each emissions unit, lb/qtr.

PE1 = Pre-Project Potential to Emit for each emissions unit, lb/qtr.

Using the values in Sections VII.C.2 and VII.C.6 in the evaluation above, quarterly PE2 and quarterly PE1 can be calculated as follows:

Mold swabbing operation (permit C-801-11-8) and Hot end bottle coating operation (permit C-801-12-8)

Quarterly NEC [QNE	Quarterly NEC [QNEC] Mold Swabbing Operation and Hot End Bottle Coating Operation							
Pollutant	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)					
NO <sub>X</sub>	0	0	0					
SO <sub>X</sub>	0	0	0					
PM <sub>10</sub>	16,337	19,815*	-3,478					
CO	0	0	0					
VOC	0	0	0					

<sup>\*</sup> Sum of the two operations = (70,372 + 8,889) lb/year ÷ 4 qtr/year

#### VIII. COMPLIANCE

## Rule 2201 New and Modified Stationary Source Review

## A. Best Available Control Technology (BACT)

## 1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis for the following\*:

a. Any new emissions unit with a potential to emit exceeding two pounds per day,

- b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,
- c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AIPE exceeding two pounds per day, and/or
- d. Any new or modified emissions unit, in a stationary source project, which results in a Major Modification.

\*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

## a. New emissions units - PE > 2 lb/day

As discussed in Section I above, there are no new emissions units associated with this project. Therefore BACT for new units with PE > 2 lb/day purposes is not triggered.

## b. Relocation of emissions units - PE > 2 lb/day

As discussed in Section I above, there are no emissions units being relocated from one stationary source to another; therefore BACT is not triggered.

## c. Modification of emissions units - AIPE > 2 lb/day

AIPE = PE2 - HAPE

Where,

AIPE = Adjusted Increase in Permitted Emissions, (lb/day)

PE2 = Post-Project Potential to Emit, (lb/day)

HAPE = Historically Adjusted Potential to Emit, (lb/day)

 $HAPE = PE1 \times (EF2/EF1)$ 

Where,

PE1 = The emissions unit's PE prior to modification or relocation, (lb/day)

EF2 = The emissions unit's permitted emission factor for the pollutant after modification or relocation. If EF2 is greater than EF1 then EF2/EF1 shall be set to 1

EF1 = The emissions unit's permitted emission factor for the pollutant before the modification or relocation

AIPE = PE2 - (PE1 \* (EF2 / EF1))

Mold swabbing operation (permit C-801-11-8)

Adjusted Increase in Permitted Emissions Mold Swabbing Operation							
Pollutant	PE2 (lb/day)	PE1 (lb/day)	EF2 (lb/ton)	EF1 (lb/ton)	AIPE (lb/day)	BACT Triggered?	
PM <sub>10</sub>	199.5	199.5	0.19	0.19	0.0	No	
PM <sub>2.5</sub>	199.5	199.5	0.19	0.19	0.0	No	

## Hot end bottle coating operation (permit C-801-12-8)

Adjusted Increase in Permitted Emissions Hot End Bottle Coating Operation							
Pollutant	PE2 (lb/day)	PE1 (lb/day)	EF2 (lb/ton)	EF1 (lb/ton)	AIPE (lb/day)	BACT Triggered?	
PM <sub>10</sub>	25.2	25.2	0.024	0.024	0.0	No	
PM <sub>2.5</sub>	25.2	25.2	0.024	0.024	0.0	No	

## d. SB 288/Federal Major Modification

As discussed in Sections VII.C.7 and VII.C.8 above, this project does not constitute an SB 288 and/or Federal Major Modification. Therefore BACT is not triggered for any pollutant.

#### B. Offsets

## 1. Offset Applicability

Offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the Post Project Stationary Source Potential to Emit (SSPE2) equals to or exceeds the offset threshold levels in Table 4-1 of Rule 2201.

The following table compares the post-project facility-wide annual emissions in order to determine if offsets will be required for this project.

Offset Determination						
Α	NO <sub>X</sub>	SO <sub>X</sub>	PM <sub>10</sub>	СО	VOC	
Post Project SSPE (SSPE2)	520,769	267,549	238,368	239,597	48,324	
Offset Threshold	20,000	54,750	29,200	200,000	20,000	
Offsets Triggered?	Yes	Yes	Yes	No	Yes	

## 2. Quantity of Offsets Required

As seen above, the facility is an existing Major Source for all pollutants and the SSPE2 is greater than the offset thresholds; therefore offset calculations will be required for this project.

This project involves  $PM_{10}$  and  $PM_{2.5}$  emissions only. This facility is not a major source for  $PM_{2.5}$  emissions. Therefore, offset calculations for  $PM_{2.5}$  emissions are not required. Offset calculations will be shown for  $PM_{10}$  emissions.

The quantity of offsets in pounds per year is calculated as follows for sources with an SSPE1 greater than the offset threshold levels before implementing the project being evaluated.

Offsets Required (lb/year) =  $(\Sigma[PE2 - BE] + ICCE) \times DOR$ , for all new or modified emissions units in the project,

Where,

PE2 = Post Project Potential to Emit, (lb/year)

BE = Baseline Emissions, (lb/year)

ICCE = Increase in Cargo Carrier Emissions, (lb/year)

DOR = Distance Offset Ratio

BE = Pre-project Potential to Emit for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, Located at a Major Source.

otherwise,

BE = Historic Actual Emissions (HAE)

There are no increases in cargo carrier emissions; therefore offsets can be determined as follows:

Offsets Required (lb/year) =  $(\Sigma[PE2 - BE]) \times DOR$ 

Offsets Required =  $([PE2 - BE]_{C-801-11-8} + [PE2 - BE]_{C-801-12-8}) \times DOR$ 

The facility has proposed a combined annual post-project potential to emit of 65,348 lb-PM<sub>10</sub>/year for the mold swabbing operation (C-801-11-8) and hot end bottle coating operation (permit C-801-12-8).

	Offset Requirement				
Permit	Emissions	PM <sub>10</sub> (lb/year)			
C-801-11-8	PE2				
C-801-12-8	PE2	65,348			
C-801-11-8	BE	70,372			
C-801-12-8	BE	6,944			
Sum	Σ(PE2 – BE)	-11,968 → 0			

As demonstrated in the calculation above, the amount of offsets is zero for this project.

## Offset Analysis for Project C-1053187

The mold swabbing operation and hot end bottle coating operation established emission factors for the operations in project C-1053187. The emission factors used in project C-1053187 for these operations were the emission factors proposed by the applicant prior to

conducting source tests on the operations. Offsets were not required in project C-1053187 due to mitigation of the project emission increases with the installation of control equipment. However, revision of the emission factors to the source tested values in this project without NSR implication pursuant to District Policy APR 1110 would circumvent the offset requirement established in project C-1053187.

To ensure the offset requirement established in project C-1053187 is still valid with the revision of the emission factors in this project, the following analysis has been performed to ensure the offset amount that would have been required in project C-1053187 with the proposed revised emission factors are satisfied with this project. There have been no other permitting actions that affected the potential to emit for these permit units since project C-1053187.

The offset requirement in project C-1053187 is as follows:

Offset Analysis for Project C-1053187					
Emission Unit	HAE	PE2			
Furnace #1	72,811	70,956			
Furnace #2	106,324	95,618			
Mold Swabbing	18,737	27,408			
Hot End Bottle Coating	4,922	6,667			
All Others	600	2,745			
Sum	203,394	203,394			
Σ(PE2 – HAE)		0			

If the revised emission factors proposed in this project were used in project C-1053187 for the mold swabbing operation and hot end bottle coating operation, the following offset calculation would have resulted. The percentage volatized, emitted, and  $PM_{10}$  fraction are summarized in Section VII.A. Project C-1053187 utilized material usage to calculate the historical actual emissions so the same calculation methodology will be used here for consistency.

## Mold swabbing operation (permit C-801-11)

Original HAE = 53,535 lb-material/year  $\times$  0.7  $\times$  0.5 = 18,737 lb-PM<sub>10</sub>/year Revised HAE = 53,535 lb-material/year  $\times$  1.0  $\times$  0.9 = 48,182 lb-PM<sub>10</sub>/year

## Hot end bottle coating operation (permit C-801-12)

Original HAE = 28,125 lb-material/year  $\times$  0.7  $\times$  0.5  $\times$  0.5 = 4,922 lb-PM<sub>10</sub>/year Revised HAE = 28,125 lb-material/year  $\times$  1.0  $\times$  0.24  $\times$  1.0 = 6,750 lb-PM<sub>10</sub>/year

Offset Analysis for Project C-1053187 Using Revised Emission Factors							
Emission Unit	Emission Factor (lb/ton)		Revised Emissions (lb-PM <sub>10</sub> /ye				
LITISSION OTH	Original	Revised	HAE	PE2			
Furnace #1			72,811	70,956			
Furnace #2			106,324	95,618			
Mold Swabbing	0.074	0.19	48,182	70,372			
Hot End Bottle Coating	0.018	0.024	6,750	8,889			
All Others			600	2,745			
Sum			234,667	248,580			
Σ(PE2-HAE)							

As shown above, utilization of the revised emission factors proposed in this project would have resulted in an offset requirement of 13,913 lb-PM<sub>10</sub>/year instead of 0 lb-PM<sub>10</sub>/year for project C-1053187. In order to ensure that revision of the mold swabbing operation and hot end bottle coating operation does not result in circumvention of offsets required in project C-1053187, the facility has proposed to limit the post-project potential to emit from the mold swabbing operation and hot end bottle coating operation to a combined annual limit of 65,348 lb-PM<sub>10</sub>/year. As shown below, this value will result in a zero offsetting requirement for project C-1053187 when utilizing the proposed revised emission factors in this project for the mold swabbing operation and hot end bottle coating operation.

Offset Analysis for Project C-1053187 Using Revised Emission Factors					
Emission Unit	Emission Factor (lb/ton)		Revised Emissions With Cap (lb-PM <sub>10</sub> /year)		
	Original	Revised	HAE	PE2	
Furnace #1			72,811	70,956	
Furnace #2			106,324	95,618	
Mold Swabbing	0.074	0.19	48,182		
Hot End Bottle Coating	0.018	0.024	6,750	65,348	
All Others			600	2,745	
Sum			234,667	234,667	
Σ(ΡΕ2-ΗΑΕ)				0	

To ensure the proposed combined annual post-project potential to emit limit is approvable such that no offsets are required, the historical actual emissions since project C-1053187 from permit units C-801-11 and '12 will be analyzed to ensure the historical actual emissions have not exceeded the combined annual post-project potential to emit limit of 65,348 lb-PM<sub>10</sub>/year. The modifications for all permit units in project C-1053187 were implemented in December 2010.

Process Rate (tons/year) x Emission Factor (lb/ton) = HAE (lb/year)

Historical Actual Emissions For Mold Swabbing Operation Using Revised Emission Factors				
Year	Process Rate (tons/year)	Emission Factor (lb/ton)	HAE (lb-PM <sub>10</sub> /year)	
2011	289,209	0.19	54.950	
2012	284,250	0.19	54,008	
2013	283,583	0.19	53,881	

Process Rate (tons/year) x Emission Factor (lb/ton) = HAE (lb/year)

Historical Actual Emissions For Hot End Bottle Coating Operation Using Revised Emission Factors				
Year	Process Rate (tons/year)	Emission Factor (lb/ton)	HAE (lb-PM <sub>10</sub> /year)	
2011	289,209	0.024	6,941	
2012	284,250	0.024	6,822	
2013	283,583	0.024	6,806	

Mold Swabbing Operation HAE (lb/year) + Hot End Bottle Coating Operation HAE (lb/year) = Total HAE (lb/year)

Total Historical Actual Emissions Using Revised Emission Factors					
Year	Mold Swabbing Operation HAE (lb-PM <sub>10</sub> /year)	Hot End Bottle Coating Operation HAE (lb-PM <sub>10</sub> /year)	Total HAE (lb- PM <sub>10</sub> /year)	Less than Proposed Combined Limit of 65,348 lb-PM <sub>10</sub> /year?	
2011	54,950	6,941	61,891	Yes	
2012	54,008	6,822	60,830	Yes	
2013	53,881	6,806	60,687	Yes	

As shown above, the combined historical actual emissions from the mold swabbing operation and hot end bottle coating operation do not exceed the proposed combined annual  $PM_{10}$  emission limit of 65,348 lb/year.

Therefore, the mold swabbing operation and hot end bottle coating operation will be limited to a combined annual  $PM_{10}$  emission limit of 65,348 lb/year and circumvention of the offsetting requirement in project C-1053187 has not been performed and no offsets are required for this project.

#### C. Public Notification

#### 1. Applicability

Public noticing is required for:

a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications,

- b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
- c. Any project which results in the offset thresholds being surpassed, and/or
- d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant.

# a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications

New Major Sources are new facilities, which are also Major Sources. Since this is not a new facility, public noticing is not required for this project for New Major Source purposes.

As demonstrated in VII.C.7, this project does not constitute an SB 288 or Federal Major Modification; therefore, public noticing for SB 288 and Federal Major Modification purposes is not required.

#### b. PE > 100 lb/day

Applications which include a new emissions unit with a PE greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. As seen in Section VII.C.2 above, this project does not include a new emissions unit which has daily emissions greater than 100 lb/day for any pollutant, therefore public noticing for PE > 100 lb/day purposes is not required.

#### d. Offset Threshold

The following table compares the SSPE1 with the SSPE2 in order to determine if any offset thresholds have been surpassed with this project.

Offset Threshold					
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?	
NO <sub>X</sub>	520,769	520,769	20,000 lb/year	No	
SO <sub>X</sub>	267,549	267,549	54,750 lb/year	No	
PM <sub>10</sub>	252,281	238,368	29,200 lb/year	No	
CO	239,597	239,597	200,000 lb/year	No	
VOC	48,324	48,324	20,000 lb/year	No	

As detailed above, there were no thresholds surpassed with this project; therefore public noticing is not required for offset purposes.

#### e. SSIPE > 20,000 lb/year

Public notification is required for any permitting action that results in a Stationary Source Increase in Permitted Emissions (SSIPE) of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE is calculated as the Post

Project Stationary Source Potential to Emit (SSPE2) minus the Pre-Project Stationary Source Potential to Emit (SSPE1), i.e. SSIPE = SSPE2 – SSPE1. The values for SSPE2 and SSPE1 are calculated according to Rule 2201, Sections 4.9 and 4.10, respectively. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table:

Stationa	Stationary Source Increase in Permitted Emissions [SSIPE] – Public Notice					
Pollutant	SSPE2 (lb/year)	SSPE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?	
NO <sub>x</sub>	520,769	520,769	0	20,000 lb/year	Yes	
SO <sub>x</sub>	267,549	267,549	0	20,000 lb/year	No	
PM <sub>10</sub>	238,368	252,281	-13,913	20,000 lb/year	No	
CO	239,597	239,597	0	20,000 lb/year	No	
VOC	48,324	48,324	0	20,000 lb/year	No	

As demonstrated above, the SSIPEs for all pollutants were less than 20,000 lb/year; therefore public noticing for SSIPE purposes is not required.

#### 2. Public Notice Action

As discussed above, this project will not result in emissions, for any pollutant, which would subject the project to any of the noticing requirements listed above. Therefore, public notice will not be required for this project.

## D. Daily Emission Limits

DELs and other enforceable conditions are required by Rule 2201 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. The DEL must be contained in the latest ATC permit and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

## Proposed Rule 2201 (DEL) Conditions

## Mold swabbing operation (permit C-801-11-8)

- The permittee shall use best management practices and minimize the use of mold swabbing material (less than or = to 0.211 lb of material per ton of glass pulled) with PM<sub>10</sub> emissions of 0.19 lb/ton of glass pulled in order to minimize PM<sub>10</sub> emissions from this unit. [District Rule 2201]
- Glass throughput for this mold swabbing operation shall not exceed 1,050 U.S. short tons per day. [District Rule 2201]

## Hot end bottle coating operation (permit C-801-12-8)

- Emissions from this hot end bottle coating operation shall not exceed 0.024 lb-PM<sub>10</sub>/ton of glass pulled. [District Rule 2201]
- Glass throughput for this hot end bottle coating operation shall not exceed 1,050 U.S. short tons per day. [District Rule 2201]

#### E. Compliance Assurance

## 1. Source Testing

Pursuant to District Policy APR 1705, source testing is not required to demonstrate compliance with Rule 2201.

#### 2. Monitoring

No monitoring is required to demonstrate compliance with Rule 2201.

#### 3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201.

## Mold swabbing operation (permit C-801-11-8)

- The permittee shall maintain the following records with regards to visible emission inspections: 1) inspection test method, 2) date and time of inspection, 3) stack or emission point identification, 4) observed results and conclusions, 5) type of corrective action taken, if any to reduce visible emissions and 6) name of person(s) performing the inspection. [District Rule 2520]
- The permittee shall maintain records of the daily quantity of swabbing compound used in this mold swabbing operation. [District Rules 2201 and 2520]
- The permittee shall maintain records of the daily and annual container glass throughput for this mold swabbing operation. [District Rules 2201 and 2520]
- All records required to be maintained by this permit shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rule 2201]

## Hot end bottle coating operation (permit C-801-12-8)

- Records shall be maintained such that daily quantities of coating material consumption can be determined. Such records shall be retained and shall be made available for inspection by District staff upon request. [District Rule 2520]
- The permittee shall maintain the following records with regards to visible emission inspections: 1) inspection test method, 2) date and time of inspection, 3) stack or emission point identification, 4) observed results and conclusions, 5) type of corrective

- action taken, if any to reduce visible emissions and 6) name of person(s) performing the inspection. [District Rule 2520]
- The permittee shall maintain records of the daily and annual container glass throughput for this hot end bottle coating. [District Rules 2201 and 2520]
- All records required to be maintained by this permit shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rule 2201]

#### 4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

## Rule 2410 Prevention of Significant Deterioration

The prevention of significant deterioration (PSD) program is a construction permitting program for new major stationary sources and major modifications to existing major stationary sources located in areas classified as attainment or in areas that are unclassifiable for any criteria air pollutant.

As demonstrated above, this project is not subject to the requirements of Rule 2410 due to a significant emission increase and no further discussion is required.

## Rule 2520 Federally Mandated Operating Permit

This facility is subject to this Rule, and has received their Title V Operating Permit. The proposed modification is a Minor Modification to the Title V Permit.

In accordance with Rule 2520, these modifications:

- 1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
- 2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
- 3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
- 4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
  - a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
  - b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and
- 5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
- 6. Do not seek to consolidate overlapping applicable requirements.

As discussed above, the facility has applied for a Certificate of Conformity (COC) (see Attachment C). Therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility may construct/operate under the ATC permit upon submittal of the Title V administrative amendment application.

#### Rule 4001 New Source Performance Standards

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60. However, no subparts of 40 CFR Part 60 apply to mold swabbing operations or hot end bottle coating operations.

#### Rule 4002 National Emission Standards for Hazardous Air Pollutants

This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63. However, no subparts of 40 CFR Part 61 or 40 CFR Part 63 apply to mold swabbing operations or hot end bottle coating operations.

#### Rule 4101 Visible Emissions

Rule 4101 states that no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity). As the units are fired solely on natural gas, visible emissions are not expected to exceed Ringelmann 1 or 20% opacity. Also, based on past inspections of the facility continued compliance is expected.

The following condition will be listed on the permits to ensure compliance:

 No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

#### Rule 4102 Nuisance

Rule 4102 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained. Therefore, compliance with this rule is expected.

## California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 – Risk Management Policy for Permitting New and Modified Sources specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

As demonstrated above, there are no increases in emissions associated with this project, therefore a health risk assessment is not necessary and no further risk analysis is required.

#### Rule 4201 Particulate Matter Concentration

Section 3.1 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot.

Particulate matter (PM) emissions are not expected to exceed 0.1 grains/dscf. Therefore, compliance with District Rule 4201 requirements is expected and a permit condition will be listed on the permits as follows:

 Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

#### Rule 4202 Particulate Matter - Emission Rate

This rule limits the allowable PM emission rate based on the equipment process weight rate. Section 3.1 defines the process weight as "the total weight of all materials introduced into any specific process, which process may cause any discharge into the atmosphere."

Per section 4.1, particulate matter (PM) emissions from any source operation shall not exceed the allowable hourly emission rate (E) as calculated using the following applicable formulas:

```
E = 3.59 P^{0.62} (when, P = process weight rate \le 30 \text{ tons/hr})
E = 17.31 P^{0.16} (when, P = process weight rate > 30 \text{ tons/hr})
```

## Mold swabbing operation (permit C-801-11-8)

The post-project process weight rate of the mold swabbing operation is 43.75 tons per hour (equivalent to 1,050 tons per day).

```
Rule 4202 emission limit = 17.31 * P^{0.16} (where P greater than 30 tons/hr) = 17.31 * (43.75)^{0.16} = 31.68 lb/hr
```

The operation has a maximum Post Project Potential to Emit (PE2) of 8.31 lb-PM<sub>10</sub>/hr (199.5 lb-PM<sub>10</sub>/day  $\div$  24 hr/day). Assuming PM<sub>10</sub> = 50% PM, the operation has a maximum Post Project Potential to Emit of 16.63 lb-PM/hr.

# Hot end bottle coating operation (permit C-801-12-8)

The post-project process weight rate of the hot end bottle coating operation is 43.75 tons per hour (equivalent to 1,050 tons per day).

```
Rule 4202 emission limit = 17.31 * P^{0.16} (where P greater than 30 tons/hr) = 17.31 * (43.75)^{0.16} = 31.68 lb/hr
```

The operation has a maximum Post Project Potential to Emit (PE2) of 1.05 lb-PM<sub>10</sub>/hr (25.2 lb-PM<sub>10</sub>/day  $\div$  24 hr/day). Assuming PM<sub>10</sub> = 50% PM, the operation has a maximum Post Project Potential to Emit of 2.10 lb-PM/hr.

## California Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

#### California Environmental Quality Act (CEQA)

CEQA requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The District adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

The District performed an Engineering Evaluation (this document) for the proposed project and determined that all project specific emission unit(s) are exempt from Best Available Control Technology (BACT) requirements. Furthermore, the District conducted a Risk Management Review and concludes that potential health impacts are less than significant.

Issuance of permits for emissions units not subject to BACT requirements and with health impact less than significant is a matter of ensuring conformity with applicable District rules and regulations and does not require discretionary judgment or deliberation. Thus, the District concludes that this permitting action constitutes a ministerial approval. Section 21080 of the Public Resources Code exempts from the application of CEQA those projects over which a public agency exercises only ministerial approval. Therefore, the District finds that this project is exempt from the provisions of CEQA.

#### X. RECOMMENDATION

Compliance with all applicable rules and regulations is expected. Issue Authority to Construct permits C-801-11-8 and '12-8 subject to the permit conditions on the attached draft Authority to Construct permits in Attachment D.

#### XI. BILLING INFORMATION

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
C-801-11-8	3020-06	Miscellaneous	\$105
C-801-12-8	3020-06	Miscellaneous	\$105

#### **Attachments**

- A Current Permits to Operate
- B BACT Guideline 1.5.11 and Top Down BACT Analysis
- C Certificate of Conformity
- D Draft Authority to Construct Permits

## **ATTACHMENT A**

**Current Permits to Operate** 

**PERMIT UNIT:** C-801-11-6

**EXPIRATION DATE: 01/31/2015** 

#### **EQUIPMENT DESCRIPTION:**

MOLD SWABBING OPERATION INCLUDING FIVE PRODUCTION LINES WITH FIVE INDIVIDUAL SECTION (IS) FORMING MACHINES (THREE 10 INDIVIDUAL SECTION (IS) FORMING MACHINES FOR FURNACE #1 AND TWO INDIVIDUAL SECTION MACHINES, ONE WITH A 16 SECTION LINE AND ONE WITH A 20 SECTION LINE FOR FURNACE #2)

## PERMIT UNIT REQUIREMENTS

- 1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 4102]
- 2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
- 3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 4. Particulate matter emissions shall not exceed the maximum allowable emission rate (lb/hr), as determined using the following formula: E = 17.31 x P^0.16, where E equals the maximum allowable emission rate (lb/hr) and P equals the process weight rate (tons/hr) and is greater than 30 tons/hr. [District Rule 4202, 4.0] Federally Enforceable Through Title V Permit
- 5. The permittee shall use best management practices and minimize the use of mold swabbing material (less than or = to 0.211 lb of material per ton of glass pulled) with PM10 emissions of 0.074 lb/ton of glass pulled in order to minimize PM10 emissions from this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
- 6. Glass throughput for this mold swabbing operation shall not exceed 1,050 U.S. short tons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 7. Glass throughput for this mold swabbing operation shall not exceed 370,380 U.S. short tons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. Certified personnel, pursuant to the specifications in section 3 (Qualifications and Testing) of EPA Method 9, shall inspect the roof vent stacks weekly for visible emissions, while this equipment is in operation. The inspection shall be performed, using a modified EPA Method 9, as described in the District Compliance policy, as revised 2/10/05, for Visible Emissions Evaluations. If the modified Method 9 procedure indicates exceedance of the facility-wide 20% opacity limit, the unmodified EPA Method 9 procedure, except for data reduction (section 2.5), shall be performed within 24 hours. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 9. The permittee shall maintain the following records with regards to visible emission inspections: 1) inspection test method, 2) date and time of inspection, 3) stack or emission point identification, 4) observed results and conclusions, 5) type of corrective action taken, if any to reduce visible emissions and 6) name of person(s) performing the inspection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 10. The permittee shall maintain records of the daily quantity of swabbing compound used in this mold swabbing operation. [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

- 11. The permittee shall maintain records of the daily and annual container glass throughput for this mold swabbing operation. [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 12. All records required to be maintained by this permit shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. District Rule 4201 (as amended December 17, 1992) has been determined not to be applicable to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 14. Compliance with the conditions in the permit requirements for this unit shall be deemed compliance with District Rule 4202 (as amended December 17, 1992). A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

**PERMIT UNIT:** C-801-12-5

**EXPIRATION DATE: 01/31/2015** 

#### **EQUIPMENT DESCRIPTION:**

HOT END BOTTLE COATING OPERATION INCLUDING FIVE COATING LINES (THREE FOR FURNACE #1 AND TWO FOR FURNACE #2) WITH FIVE COATING UNITS

### PERMIT UNIT REQUIREMENTS

- 1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 4102]
- No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three
  minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
  Federally Enforceable Through Title V Permit
- 3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 4. Particulate matter emissions shall not exceed the maximum allowable emission rate (lb/hr), as determined using the following formula: E = 17.31 x P^0.16, where E equals the maximum allowable emission rate (lb/hr) and P equals the process weight rate (tons/hr) and is greater than 30 tons/hr. [District Rule 4202, 4.0] Federally Enforceable Through Title V Permit
- 5. Emissions from this hot end bottle treatment operation shall not exceed 0.018 lb-PM10/ton of glass pulled. [District Rule 2201] Federally Enforceable Through Title V Permit
- 6. Glass throughput for this hot end bottle treatment operation shall not exceed 1,050 U.S. short tons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 7. Glass throughput for this hot end bottle treatment operation shall not exceed 370,380 U.S. short tons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. Records shall be maintained such that daily quantities of coating material consumption can be determined. Such records shall be retained and shall be made available for inspection by District staff upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 9. Certified personnel, pursuant to the specifications in section 3 (Qualifications and Testing) of EPA Method 9, shall inspect the roof vent stacks weekly for visible emissions, while this equipment is in operation. The inspection shall be performed, using a modified EPA Method 9, as described in the District Compliance policy, as revised 2/17/98, for Visible Emissions Evaluations. If the modified Method 9 procedure indicates exceedance of the facility-wide 20% opacity limit, the unmodified EPA Method 9 procedure, except for data reduction (section 2.5), shall be performed within 24 hours. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 10. The permittee shall maintain the following records with regards to visible emission inspections: 1) inspection test method, 2) date and time of inspection, 3) stack or emission point identification, 4) observed results and conclusions, 5) type of corrective action taken, if any to reduce visible emissions and 6) name of person(s) performing the inspection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 11. The permittee shall maintain records of the daily and annual container glass throughput for this hot end bottle treatment. [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

- 12. All records required to be maintained by this permit shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. District Rule 4201 (as amended December 17, 1992) has been determined not to be applicable to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 14. Compliance with the conditions in the permit requirements for this unit shall be deemed compliance with District Rule 4202 (as amended December 17, 1992). A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

## **ATTACHMENT B**

**BACT Guideline 1.5.11 and Top Down BACT Analysis** 

## Best Available Control Technology (BACT) Guideline 1.5.11\*

Last Update 6/16/2006

## **Container Glass Production - Mold Swabbing Operation**

Pollutant	Achieved in Practice or	Technologically	Alternate Basic
	contained in the SIP	Feasible	Equipment
PM10	Using best management practices and the judicial use of mold swabbing material (< or = 0.106 lb of material per ton of glass produced with 70% volatilization) with PM10 emissions of 0.074 lb/ton of glass formed		

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in s a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

\*This is a Summary Page for this Class of Source

## BACT Guideline 1.5.11 Revision: Container Glass Production – Mold Swabbing Operation

## Top Down BACT Analysis for Mold Swabbing Operation PM₁₀ Emissions for Permit Unit C-801-11-8

As explained in project C-1140359, Saint-Gobain Containers, Inc has performed a source test on a mold swab operation and has measured a more accurate  $PM_{10}$  emission factor than the  $PM_{10}$  emission factor listed on current BACT Guideline 1.5.11. The source test resulted in a measured  $PM_{10}$  emission factor of 0.19 lb/ton glass pulled compared to the existing value of 0.074 lb/ton glass pulled. Current BACT Guideline 1.5.11 was based upon this same mold swabbing operation at Saint-Gobain Containers, Inc in Madera, CA. Therefore, this project will revise BACT Guideline 1.5.11 to list the most up to date emission factor for this class and category source operation.

The Environmental Protection Agency (EPA), California Air Resources Board (CARB), San Diego County Air Pollution Control District (SDCAPCD), South Coast Air Quality Management District (SCAQMD), and the Bay Area Air Quality Management District (BAAQMD) BACT clearinghouses were reviewed to determine potential control technologies for this class and category of operation. No BACT Guidelines were found for Mold Swabbing Operations.

#### Step 1 - Identify All Possible Control Technologies

The SJVUAPCD BACT Clearinghouse guideline 1.5.11, 2<sup>nd</sup> quarter 2014, identifies BACT for mold swabbing operations.

Current BACT Guideline 1.5.11 lists the following possible PM10 control technologies:

Pollutant	Achieved in Practice or contained in SIP	Technologically Feasible	Alternate Basic Equipment
PM10	Using best management practices and the judicial use of mold swabbing material (< or = 0.106 lb of material per ton of glass produced with 70% volatization) with PM10 emissions of 0.074 lb/ton of glass formed		

This BACT Guideline currently lists an incorrect usage rate as the value used in project C-1053187 is 0.211 lb of material per ton of glass produced and will be corrected in this project.

BACT Guideline 1.5.11 will be revised in this project as follows to identify possible PM<sub>10</sub> control technologies based on source tests performed by the applicant:

Pollutant	Achieved in Practice or contained in SIP	Technologically Feasible	Alternate Basic Equipment
P <b>M</b> 10	Using best management practices and the judicial use of mold swabbing material (< or = 0.211 lb of material per ton of glass produced) with PM10 emissions of 0.19 lb/ton of glass formed		

#### Step 2 - Eliminate Technologically Infeasible Options

None of the above listed technologies are technologically infeasible.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

	Rank by Control Effectiveness	
Rank	Control	Achieved in Practice
1	Using best management practices and the judicial use of mold swabbing material (< or = 0.211 lb of material per ton of glass produced) with PM10 emissions of 0.19 lb/ton of glass formed	Y

#### Step 4 - Cost Effectiveness Analysis

Pursuant to Section IX.D of District Policy APR 1305 – BACT Policy, a cost effectiveness analysis is required for the options that have not been determined to be achieved in practice.

As the applicant has proposed the most effective control technology applicable, a cost effectiveness analysis is not required.

#### Step 5 - Select BACT

Pursuant to the above Top-Down BACT Analysis, BACT for the mold swabbing operation must be satisfied with the following:

PM<sub>10</sub>: Using best management practices and the judicial use of mold swabbing material (< or = 0.211 lb of material per ton of glass produced) with PM10 emissions of 0.19 lb/ton of glass formed (Achieved in Practice)

The facility has proposed a usage rate of 0.211 lb-material/ton glass pulled and a  $PM_{10}$  emission factor of 0.19 lb/ton glass pulled. Therefore, the mold swabbing operation in this project meets the requirements of BACT for  $PM_{10}$  emissions.

**Proposed Pages For the BACT Clearinghouse** 

Best Available Control Technology (BACT) Guideline 1.5.11

**Emission Unit:** 

Container Glass Production – Mold

Industry Type:

ΑII

**Swabbing Operation** 

Last Update:

June 1, 2014

**Equipment Rating: None** 

Pollutant	Achieved in Practice or contained in SIP	Technologically Feasible	Alternate Basic Equipment
PM10	Using best management practices and the judicial use of mold swabbing material (< or = 0.211 lb of material per ton of glass produced) with PM10 emissions of 0.19 lb/ton of glass formed		

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

\*This is a Summary Page for this Class of Source - Permit Specific BACT Determinations on Next Page(s)

DRAFT

2<sup>nd</sup> Qtr. '14

## Best Available Control Technology (BACT) Guideline 1.5.11 B

**BACT Requirements** 

The following alternate basic equipment was not cost effective:

**Emission Unit:** 

Mold Swabbing Operation

**Equipment Rating:** None

Facility:

Saint-Gobain Containers, Inc.

References: ATC #: C-801-11-8

Project #: 1140359

Location:

**Pollutant** 

24441 Avenue 12 & Road 24 1/2.

Madera, CA

Date of Determination: June 1, 2014

PM10	Using best management practices and the judicial use of mold swabbing material (< or = 0.211 lb of material per ton of glass produced) with PM10 emissions of 0.19 lb/ton of glass formed
BACT Status:	X Achieved in practiceSmall EmitterT-BACTTechnologically feasible BACTAt the time of this determination achieved in practice BACT was equivalent to technologically feasible BACT.
	technologically feasible BACT Contained in EPA approved SIP The following technologically feasible options were not cost effective: Alternate Basic Equipment

## **BACT CLEARINGHOUSE**

### --Submission Form--Category

Source Category

Glass Manufacturing

SIC Code

3221

View SIC Code List

**NAICS Code** 

View NAICS Code List

## **Emission Unit Information**

Manufacturer

N/A

Type

N/A

Model

N/A

**Equipment Description** 

MOLD SWABBING OPERATION

Capacity/Dimensions

N/A

Fuel Type

N/A

Multiple Fuel Types

**Operating Schedule** 

Continuous

24 hrs/day, 8,760 hrs/yr

**Function of Equipment** 

The equipment coats the bottles with a petroleum-based hydrocarbon compound that allows the bottles to be released

from the mold after they are formed.

### **Facility/District Information**

**Facility Name** 

Saint-Gobain Containers, Inc.

Facility County

Madera County

Facility Zip Code

93637

District Contact

David Warner, San Joaquin Valley Air Pollution District

District Contact Phone

(559) 230-6000

District Contact E-mail

carlos.garcia@valleyair.org

## **Project/Permit Information**

Application or Permit Number

C-801-11-8

New Construction/Modification

Modification

ATC Date (mm-dd-yyyy)

**TBD** 

PTO Date (mm-dd-yyyy)

**TBD** 

Startup Date (mm-dd-yyyy)

TBD

Technology Status

None

Source Test Available

No

Source Test Results

No

## **BACT Information**

Pollutant Limit(s) and Control Method(s) - Please include proper units

	imit(s) and Control Meti	iou(s) - riease iliciu	de proper units
NOx	Limit: Control Method Type:	Units:	Averaging Time:
	Control Method Descrip	otion:	
	Limit:	Units:	Averaging Time:
co	Control Method Type:		
	Control Method Descrip	tion:	
	Limit:	Units:	Averaging Time:
VOC	Control Method Type:		
	Control Method Descrip	tion:	
	Limit:	Units:	Averaging Time:
PM	Control Method Type:		:
Control Method Description:			
	Limit:	Units:	Averaging Time:
PM 2.5	Control Method Type:		
	Control Method Descrip	tion:	
	Limit: 0.19	Units: lb/ton	Averaging Time:
PM 10	Control Method Type: N	lone	
	Control Method Description: None		
	Limit:	Units:	Averaging Time:
SOx	Control Method Type:		-
	Control Method Descrip	tion:	

## **ATTACHMENT C**

**Certificate of Conformity** 

#### TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appr	ropriate box)
[ ] SIGNIFICANT PERMIT MODIFICATION [ x ] MINOR PERMIT MODIFICATION	[ ] ADMINISTRATIVE AMENDMENT
COMPANY NAME: Saint-Gobain Containers, Inc.	FACILITY ID: C- 801
Type of Organization:[x] Corporation [] Sole Ow	vnership []Government []Partnership []Utility
2. Owner's Name: Saint-Gobain Containers, Inc.	
3. Agent to the Owner: n/a	
II. COMPLIANCE CERTIFICATION (Read each st	tatement carefully and initial all circles for confirmation):
Based on information and belief formed after r continue to comply with the applicable federal	reasonable inquiry, the equipment identified in this application will requirement(s).
	reasonable inquiry, the equipment identified in this application will that will become effective during the permit term, on a timely basis
Corrected information will be provided to the linformation has been submitted.	District when I become aware that incorrect or incomplete
	reasonable inquiry, information and statements in the submitted ing reports, and required certifications are true accurate and
I declare, under penalty of perjury under the laws of the	state of California, that the forgoing is correct and true:
	02/04/14
Signature of Responsible Official	Date
Mirko Mulier	
Name of Responsible Official (please print)	•
Plant Manager	
Title of Responsible Official (please print)	•

## **ATTACHMENT D**

**Draft Authority to Construct Permits** 

**AUTHORITY TO CONSTRUCT** 

**PERMIT NO:** C-801-11-8

LEGAL OWNER OR OPERATOR: SAINT-GOBAIN CONTAINERS, INC

MAILING ADDRESS: 24441 AVENUE 12

ATTN: ENVIRO MANAGER/S. ARUNAGIRI

ISSUANC

MADERA, CA 93637

**LOCATION:** 24441 AVENUE 12 & ROAD 24 1/2

**MADERA, CA 93637** 

#### **EQUIPMENT DESCRIPTION:**

MODIFICATION OF MOLD SWABBING OPERATION INCLUDING FIVE PRODUCTION LINES WITH FIVE INDIVIDUAL SECTION (IS) FORMING MACHINES (THREE 10 INDIVIDUAL SECTION (IS) FORMING MACHINES FOR FURNACE #1 AND TWO INDIVIDUAL SECTION MACHINES, ONE WITH A 16 SECTION LINE AND ONE WITH A 20 SECTION LINE FOR FURNACE #2): REVISE PM10 EMISSION FACTOR FROM 0.074 LB/TON TO 0.19 LB/TON

#### **CONDITIONS**

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- 2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- 3. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 4102]
- 4. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
- 5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

#### CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seved Sadredin, Executive Directory APCO

Arnaud Marjollet, Director of Permit Services

- 6. Particulate matter emissions shall not exceed the maximum allowable emission rate (lb/hr), as determined using the following formula: E = 17.31 x P^0.16, where E equals the maximum allowable emission rate (lb/hr) and P equals the process weight rate (tons/hr) and is greater than 30 tons/hr. [District Rule 4202] Federally Enforceable Through Title V Permit
- 7. The permittee shall use best management practices and minimize the use of mold swabbing material (less than or = to 0.211 lb of material per ton of glass pulled) with PM10 emissions of 0.19 lb/ton of glass pulled in order to minimize PM10 emissions from this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. Glass throughput for this mold swabbing operation shall not exceed 1,050 U.S. short tons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. Glass throughput for this mold swabbing operation shall not exceed 370,380 U.S. short tons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. Combined PM10 emissions from permits C-801-11 and '12 shall not exceed 65,348 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
- 11. Certified personnel, pursuant to the specifications in section 3 (Qualifications and Testing) of EPA Method 9, shall inspect the roof vent stacks weekly for visible emissions, while this equipment is in operation. The inspection shall be performed, using a modified EPA Method 9, as described in the District Compliance policy, as revised 2/10/05, for Visible Emissions Evaluations. If the modified Method 9 procedure indicates exceedance of the facility-wide 20% opacity limit, the unmodified EPA Method 9 procedure, except for data reduction (section 2.5), shall be performed within 24 hours. [District Rule 2520] Federally Enforceable Through Title V Permit
- 12. The permittee shall maintain the following records with regards to visible emission inspections: 1) inspection test method, 2) date and time of inspection, 3) stack or emission point identification, 4) observed results and conclusions, 5) type of corrective action taken, if any to reduce visible emissions and 6) name of person(s) performing the inspection. [District Rule 2520] Federally Enforceable Through Title V Permit
- 13. The permittee shall maintain records of the daily quantity of swabbing compound used in this mold swabbing operation. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
- 14. The permittee shall maintain records of the daily and annual container glass throughput for this mold swabbing operation and combined annual PM10 emissions from permits C-801-11 and '12. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
- 15. All records required to be maintained by this permit shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
- 16. District Rule 4201 (as amended December 17, 1992) has been determined not to be applicable to this permit unit. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
- 17. Compliance with the conditions in the permit requirements for this unit shall be deemed compliance with District Rule 4202 (as amended December 17, 1992). A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit



**AUTHORITY TO CONSTRUCT** 

**PERMIT NO:** C-801-12-8

LEGAL OWNER OR OPERATOR: SAINT-GOBAIN CONTAINERS, INC

MAILING ADDRESS: 24441 AVENUE 12

ATTN: ENVIRO MANAGER/S. ARUNAGIRI

ISSU

**MADERA, CA 93637** 

**LOCATION:** 24441 AVENUE 12 & ROAD 24 1/2

MADERA, CA 93637

#### **EQUIPMENT DESCRIPTION:**

MODIFICATION OF HOT END BOTTLE COATING OPERATION INCLUDING FIVE COATING LINES (THREE FOR FURNACE #1 AND TWO FOR FURNACE #2) WITH FIVE COATING UNITS: REVISE PM10 EMISSION FACTOR FROM 0.018 LB/TON TO 0.024 LB/TON

#### **CONDITIONS**

- 1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
- 2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
- 3. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 4102]
- 4. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
- 5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

#### CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all-other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Diffectory APCO

Arnaud Marjollet Director of Permit Services

- 6. Particulate matter emissions shall not exceed the maximum allowable emission rate (lb/hr), as determined using the following formula: E = 17.31 x P^0.16, where E equals the maximum allowable emission rate (lb/hr) and P equals the process weight rate (tons/hr) and is greater than 30 tons/hr. [District Rule 4202] Federally Enforceable Through Title V Permit
- 7. Emissions from this hot end bottle coating operation shall not exceed 0.024 lb-PM10/ton of glass pulled. [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. Glass throughput for this hot end bottle coating operation shall not exceed 1,050 U.S. short tons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. Glass throughput for this hot end bottle coating operation shall not exceed 370,380 U.S. short tons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. Combined PM10 emissions from permits C-801-11 and '12 shall not exceed 65,348 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
- 11. Records shall be maintained such that daily quantities of coating material consumption can be determined. Such records shall be retained and shall be made available for inspection by District staff upon request. [District Rule 2520] Federally Enforceable Through Title V Permit
- 12. Certified personnel, pursuant to the specifications in section 3 (Qualifications and Testing) of EPA Method 9, shall inspect the roof vent stacks weekly for visible emissions, while this equipment is in operation. The inspection shall be performed, using a modified EPA Method 9, as described in the District Compliance policy, as revised 2/17/98, for Visible Emissions Evaluations. If the modified Method 9 procedure indicates exceedance of the facility-wide 20% opacity limit, the unmodified EPA Method 9 procedure, except for data reduction (section 2.5), shall be performed within 24 hours. [District Rule 2520] Federally Enforceable Through Title V Permit
- 13. The permittee shall maintain the following records with regards to visible emission inspections: 1) inspection test method, 2) date and time of inspection, 3) stack or emission point identification, 4) observed results and conclusions, 5) type of corrective action taken, if any to reduce visible emissions and 6) name of person(s) performing the inspection. [District Rule 2520] Federally Enforceable Through Title V Permit
- 14. The permittee shall maintain records of the daily and annual container glass throughput for this hot end bottle coating operation and combined annual PM10 emissions from permits C-801-11 and '12. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
- 15. All records required to be maintained by this permit shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
- 16. District Rule 4201 (as amended December 17, 1992) has been determined not to be applicable to this permit unit. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
- 17. Compliance with the conditions in the permit requirements for this unit shall be deemed compliance with District Rule 4202 (as amended December 17, 1992). A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit

